Claims

What is claimed is:

1. A projection type display unit, comprising,

an imager defining a plurality of controllable pixels;

a light source for exclusively generating light of a selected color, said light source arranged for transmitting said light through said imager to produce an image; and

a projector lens for magnifying and focusing said image for projection on a screen;

wherein said light source is comprised of a CRT device exciting a resonant microcavity with an active region, said active region having a phosphor disposed therein for exclusively emitting light of said selected color.

2. The projection display unit according to claim 1 wherein said imager is an LCOS device.

3. The projection display unit according to claim 1 wherein three said imagers are provided and three said CRT devices are provided, each of said CRT devices exclusively generating a distinct color of light for projection through a respective one of said imagers to produce three distinct color images.

4. The projection display unit according to claim 3 wherein said three CRT devices produce red, green and blue light respectively.

5. The projection display unit according to claim 4 further comprising an optical combiner, said optical combiner merging each of said distinct color images to form a single composite image.

6. An illumination source for a LCOS projection system, comprising:

a floodscreen cathode ray tube;

an array of resonant microcavities excited by said CRT for exclusively generating light of a selected color.

7. The illumination source according to claim 6 wherein said array of resonant microcavities is arranged so that said light is projected through an LCOS device to produce an image.

8. The illumination source according to claim 7 further comprising a projector lens for magnifying and focusing said image for projection on a screen.

9. A method for displaying an image, comprising,

exciting with a CRT an array of resonant microcavities configured for exclusively emitting light of a selected color;

projecting said light through an LCOS imager defining a plurality of controllable pixels to produce an image; and

magnifying and focusing said image through a lens for projection on a screen.

10. The method according to claim 9 further comprising the steps of:

optically combining said image produced with said light of said selected color with at least one other image of a second selected color distinct from said first selected color.

11. The method according to claim 10 wherein said colors are selected from the group consisting of red, green and blue.